

PUBLICATION NUMBER : 01014129  
PUBLICATION DATE : 18-01-89

APPLICATION DATE : 08-07-87  
APPLICATION NUMBER : 62168702

APPLICANT : HITACHI LTD;

INVENTOR : HAYASHI MASAKATSU;

INT.CL. : C03C 17/34 B60S 1/00

TITLE : GLASS HAVING TRANSPARENT FILM AND METHOD FOR FORMING TRANSPARENT FILM ON GLASS

ABSTRACT : PURPOSE: To obtain the titled glass sharply decreasing heat absorption from outside at air-cooling and preventing clouding by efficiently absorbing inside heat, by forming transparent film reflecting ultraviolet and(or) infrared radiation on glass and by further forming hydrophilic transparent film on it.

CONSTITUTION: The transparent film having characteristic of reflecting ultraviolet and(or) infrared radiation is formed on a glass substrate. The transparent film consists of mixed corpuscle of two or more kinds of  $\text{In}_2\text{O}_3$ ,  $\text{SnO}_2$  and  $\text{Sb}_2\text{O}_3$ . Then, the targeted glass having transparent film is obtd. by further forming hydrophilic transparent film consisting of e.g.  $\text{SiO}_2$  corpuscle on the transparent film above-mentioned. According to this invention, it is possible to reduce the capacity of cooling equipment, because of preventing an inflow of heat from the outside of window and besides, efficiently absorbing inside heat. On the other hand, frost and dew can be efficiently removed, because the glass becomes conductive at air-heating and can be used as a surface heater.

COPYRIGHT: (C) JPO

**THIS PAGE BLANK (USPTO)**